

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1 1. (Original) A method for treating presbyopia in a patient, the method
2 comprising:
3 abating a central zone of a corneal surface of a first eye of the patient to improve
4 the patient's ability to view near objects through the central zone of the first eye; and
5 abating a peripheral zone of a corneal surface of a second eye of the patient to
6 improve the patient's ability to view near objects through the peripheral zone of the second eye.
- 1 2. (Original) A method as in claim 1, wherein the central zone produced
2 during the first abating step comprises a substantially spherical surface.
- 1 3. (Original) A method as in claim 1, wherein the central zone produced
2 during the first abating step comprises a multifocal aspheric surface.
- 1 4. (Original) A method as in claim 1, wherein abating the central zone of
2 the corneal surface of the first eye comprises leaving a small central portion of the corneal
3 surface untreated.
- 1 5. (Original) A method as in claim 1, wherein the ablated central zone has
2 a diameter scaled to a diameter of a pupil of the first eye.
- 1 6. (Original) A method as in claim 1, wherein the ablated central zone has
2 an optical power of between about 0.5 and 4.0 Diopters.
- 1 7. (Original) A method as in claim 6, wherein the ablated central zone has
2 an optical power of between about 1.0 and 3.0 Diopters.

1 8. (Original) A method as in claim 6, wherein the ablated central zone has
2 an optical power of about 1.75 Diopters.

1 9. (Original) A method as in claim 1, further comprising ablating a
2 peripheral zone of the corneal surface of the first eye to improve the patient's ability to view far
3 objects through the peripheral zone of the first eye.

1 10. (Original) A method as in claim 9, wherein the peripheral zone of the
2 first eye extends radially outward from an outer boundary of the ablated central zone of the first
3 eye to a diameter approximately matching an outer boundary of a pupil of the first eye.

1 11. (Original) A method as in claim 9, further comprising ablating a
2 transition zone of the corneal surface of the first eye, the transition zone extending from an outer
3 boundary of the ablated peripheral zone of the first eye.

1 12. (Original) A method as in claim 1, wherein ablating the peripheral zone
2 of the corneal surface of the second eye comprises leaving a central zone of the corneal surface
3 of the second eye untreated to provide for vision of distant objects through the central zone.

1 13. (Original) A method as in claim 12, wherein the central zone of the
2 second eye has a diameter scaled to a diameter of a pupil of the second eye.

1 14. (Original) A method as in claim 1, further comprising ablating a central
2 zone of the corneal surface of the second eye to improve the patient's ability to view distant
3 objects through the central zone.

1 15. (Currently amended) A method for performing laser eye surgery on a
2 patient to treat presbyopia, the method comprising:
3 determining a first ablative shape for a corneal surface, the first ablative shape
4 being aspherical so as to enhance ~~enhancing~~ vision of near objects through a central zone of an
5 eye;

6 ablating a corneal surface of a first eye of the patient according to the first
7 ablative shape;
8 determining a second ablative shape for a corneal surface, the second ablative
9 shape being aspherical so as to enhance ~~enhance~~ vision of near objects through a peripheral
10 zone of an eye; and
11 ablating a corneal surface of a second eye of the patient according to the second
12 ablative shape, wherein the first and second ablative shapes mitigate the presbyopia.

1 16. (Original) A method as in claim 15, wherein the first ablative shape
2 comprises a central zone having a substantially spherical surface.

1 17. (Original) A method as in claim 15, wherein the first ablative shape
2 comprises a central zone having a multifocal aspheric surface.

1 18. (Original) A method as in claim 15, wherein the first ablative shape
2 comprises a small central portion of the central zone that remains untreated.

1 19. (Original) A method as in claim 15, wherein the central zone of the eye
2 according to the first ablation shape has a diameter scaled to a diameter of a pupil of the first eye.

1 20. (Original) A method as in claim 15, wherein the central zone of the eye
2 according to the first ablative shape has an optical power of between about 0.5 and 4.0 Diopters.

1 21. (Original) A method as in claim 20, wherein the central zone of the eye
2 according to the first ablative shape has an optical power of between about 1.0 and 3.0 Diopters.

1 22. (Original) A method as in claim 20, wherein the central zone of the eye
2 according to the first ablative shape has an optical power of about 1.75 Diopters.

1 23. (Original) A method as in claim 15, wherein the first ablative shape
2 includes a peripheral zone, wherein the peripheral zone is shaped to provide for vision of distant
3 objects.

1 24. (Original) A method as in claim 23, wherein the first ablative shape
2 further includes a transition zone, the transition zone extending from an outer boundary of the
3 peripheral zone.

1 25. (Original) A method as in claim 15, wherein the second ablative shape
2 includes an untreated central zone to provide for vision of distant objects.

1 26. (Original) A method as in claim 15, wherein the second ablative shape
2 includes a central zone shaped to improve the patient's ability to view distant objects.

1 27. (Currently amended) A laser eye surgery system for treating presbyopia
2 in a patient, the system comprising:

3 a laser device for emitting a beam of ablative energy;

4 delivery system optics coupled to the laser device; and

5 a processor coupled with the laser device and the delivery system optics to direct
6 the beam of ablative energy to ablate a first ablative shape on a corneal surface of a first eye of
7 the patient and a second ablative shape on a corneal surface of a second eye of the patient,
8 wherein the processor includes a tangible medium having a treatment table embodied thereon,
9 and wherein the first ablative shape enhances near vision through a central zone of the first eye,
10 and the second ablative shape enhances near vision through a peripheral zone of the second eye.

1 28. (Currently amended) A system as in claim 27, ~~wherein the processor~~
2 ~~includes a tangible medium having a treatment table embodied thereon,~~ wherein the treatment
3 table includes reference coordinates for directing the laser device to ablate the first and second
4 ablative shapes.

1 29. (Previously presented) A system as in claim 28, wherein the treatment
2 table is configured so that the central zone of the first ablative shape comprises a substantially
3 spherical surface.

1 30. (Previously presented) A system as in claim 28, wherein the treatment
2 table is configured so that the central zone of the first ablative shape comprises a multifocal
3 aspheric surface.

1 31. (Previously presented) A system as in claim 28, wherein the treatment
2 table is configured so that the first ablative shape includes a small untreated central portion
3 within the central zone.

1 32. (Previously presented) A system as in claim 28, wherein the treatment
2 table is configured so that the central zone of the first ablative shape has a diameter scaled to a
3 diameter of a pupil of the first eye.

1 33. (Previously presented) A system as in claim 28, wherein the treatment
2 table is configured so that the central zone of the first ablative shape has an optical power of
3 between about 0.5 and 4.0 Diopters.

1 34. (Original) A system as in claim 33, wherein the central zone has an
2 optical power of between about 1.0 and 3.0 Diopters.

1 35. (Original) A system as in claim 34, wherein the central zone has an
2 optical power of about 1.75 Diopters.

1 36. (Previously presented) A system as in claim 28, wherein the treatment
2 table is configured so that the first ablative shape further comprises a peripheral zone for viewing
3 distant objects.

1 37. (Previously presented) A system as in claim 36, wherein the treatment
2 table is configured so that the first ablative shape further includes a transition zone, the transition
3 zone extending from an outer boundary of the peripheral zone.

1 38. (Previously presented) A system as in claim 28, wherein the treatment
2 table is configured so that the second ablative shape includes an untreated central zone to provide
3 for vision of distant objects.

1 39. (Previously presented) A system as in claim 28, wherein the treatment
2 table is configured so that the second ablative shape includes a central zone shaped to improve
3 the patient's ability to view distant objects.

1 40. (Previously presented) A system as in claim 27, wherein the processor
2 includes a module having software comprising tangible media embodying machine-readable
3 instructions for directing the laser device to ablate the first and second ablative shapes.

1 41. (New) A method for treating presbyopia in a patient, the method
2 comprising:
3 ablating a central zone of a corneal surface of a first eye of the patient to improve
4 the patient's ability to view near objects through the central zone of the first eye;
5 ablating a peripheral zone of the corneal surface of the first eye of the patient to
6 improve the patient's ability to view far objects through the peripheral zone of the first eye;
7 ablating a peripheral zone of a corneal surface of a second eye of the patient to
8 improve the patient's ability to view near objects through the peripheral zone of the second eye;
9 and
10 ablating a central zone of the corneal surface of the second eye of the patient to
11 improve the patient's ability to view far objects through the central zone of the second eye.